

Appl. No. : [REDACTED] Unknown
Filed : Herewith

Please add the following new claims:

X³

Sub. B

54. (New) A thin film structure, comprising:
a substrate assembly;
a first nucleation layer formed over the substrate assembly;
an orientation layer formed over the first nucleation layer;
a second nucleation layer formed over the orientation layer; and
a BST film formed over the second nucleation layer, wherein the orientation layer
and the BST film have substantially the same desired crystal orientation.

55. (New) The thin film structure of Claim 54, wherein the first nucleation layer
comprises NiO.

56. (New) The thin film structure of Claim 54, wherein the orientation layer and the
BST film have a {100} orientation.

57. (New) The thin film structure of Claim 54, wherein the orientation layer
comprises an electrode material.

58. (New) The thin film structure of Claim 54, wherein the orientation layer is made
of a material selected from the group consisting of Pt, Ru, RuO_x, Ir, IrO_x, Pt-Rh, Pd and Mo.

59. (New) The thin film structure of Claim 54, wherein the orientation layer is made
of platinum.

60. (New) The thin film structure of Claim 59, wherein the second nucleation layer
comprises a material selected from the group consisting of Ti, Nb and Mn.

61. (New) The thin film structure of Claim 54, wherein the second nucleation layer
has a thickness of less than about 50 Å.

62. (New) The thin film structure of Claim 54, wherein the BST film has a thickness
of about 150 to 300 Å.

63. (New) The thin film structure of Claim 54, further comprising an electrode
formed over the BST film.

64. (New) The thin film structure of Claim 54, wherein the substrate assembly
includes polysilicon.

65. (New) The thin film structure of Claim 54, wherein the BST film comprises
between about 50 and 53.5 atomic percent titanium.

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66. (New) The thin film structure of Claim 54, wherein the BST film comprises between about 52 and 53 atomic percent titanium.
67. (New) A thin film structure, comprising:
 - a substrate assembly;
 - a nucleation layer formed over the substrate assembly;
 - an electrode material formed over the nucleation layer; and
 - a BST film formed over the nucleation layer.
68. (New) The thin film structure of Claim 67, wherein the nucleation layer is NiO.
69. (New) The thin film structure of Claim 67, wherein the electrode material is Pt.
70. (New) The thin film structure of Claim 67, further comprising a second nucleation layer between the electrode material and the BST film.
71. (New) The thin film structure of Claim 67, wherein the second nucleation layer is selected from the group consisting of Ti, Nb and Mn.
72. (New) A thin film structure, comprising:
 - a substrate assembly;
 - an electrode material formed over the substrate assembly;
 - a nucleation layer formed over the electrode material; and
 - a BST film formed over the nucleation layer.
73. (New) The thin film structure of Claim 72, wherein the electrode material is Pt.
74. (New) The thin film structure of Claim 72, wherein the nucleation layer is Ti.
75. (New) The thin film structure of Claim 72, wherein the nucleation layer is Nb.
76. (New) The thin film structure of Claim 72, wherein the nucleation layer is Mn.
77. (New) The thin film structure of Claim 72, wherein the nucleation layer has a thickness of less than about 50 Å.